7000 HAZAZDOUS MATERIALS

7000 HAZAZDOUS MATERIALS

7100 SCOPE

7110 Introduction

This section is intended to meet the Federal Water Pollution Control Act (FWPCA) requirement for hazardous substance release contingency planning. Public Law 101-380 created the Oil Pollution Act of 1990 (OPA 90) which amended the FWPCA to require contingency planning for releases of hazardous substances into the environment. That amendment is found in Title 33, United States Code, Section 1321(j)(1). This is further codified in Title 40 Code of Federal Regulations (CFR), Part 300, National Contingency Plan. Title 40 CFR, Part 120 directs the U.S. Coast Guard to be the pre-designated On-Scene Coordinator for removal of releases of hazardous substances, pollutants, or contaminants into or threatening the coastal zone. This is further delegated to the USCG Captain of the Port (COTP) or his/her representative.

While the law requires planning for hazardous substance releases, the developers of this section chose to use the more defined list of "Extremely Hazardous Substances" (EHS) as defined in Title 40 CFR, Part 355, Appendix A for plan development. The use of EHS for the purpose of this plan is to assimilate a response for worst case discharges. Essentially, this section addresses response to any hazardous non-oil substance spilled, or released into the coastal zone. For the purposes of this section, the coastal zone shall be as described in Title 40 CFR, Part 300, Section 5. This area is better defined in Section 1400 of the Area Contingency Plan (ACP).

This section attempts to outline the jurisdictional boundaries of hazardous materials (Hazmat) incident response between federal, state, and local agencies. It also defines the locally available response assets to address a Hazmat incident, and uses scenarios to describe likely response activities in hypothetical circumstances.

7120 Background

In addition to examining the prevention and response to oil-related incidents, the FWPCA addressed hazardous substances as well. In previous versions of the ACP, hazardous-substance issues were given only cursory attention due primarily with the complexity of the subject and the immediate necessity of outlining emergency response to oil. In this ACP, an effort was made to address the issues concerning Hazmat in more detail with the understanding that this is an iterative process. This document is a "working plan" which should continue to evolve during future planning cycles.

For the purposes of this section, the discussion will be limited to Hazmat incidents occurring in the coastal zone only. This approach has been taken in order to isolate the issues of jurisdiction and response procedures to one clearly defined area. Scenarios have been developed using this approach to further examine all issues surrounding Hazmat incidents in the coastal zone.

In accordance with the California Hazardous Materials Incident Contingency Plan (HMICP), response and management of a Hazmat incident is primarily the responsibility of local government acting as the lead for public health and safety within their jurisdiction. This is especially true when an incident occurs in an inland location. Local fire and police departments and other emergency personnel who have been trained in response procedures for Hazmat incidents will respond and be the first officials to begin handling the emergency. If mutual assistance is required or, due to the size of an incident, state or federal resources are needed, a larger response network is built through the State's Standardized Emergency Management System (SEMS) and a unified command representing joint decision-making authority will be developed. The vast majority of relatively routine Hazmat incidents are handled in this manner.

However, Hazmat incident response in the marine environment offers a unique set of variables that do not lend themselves to be defined along clear jurisdictional lines. Local government personnel may have the resources and training to respond properly to land-based incidents, but do not have the expertise of dealing with marine related

emergency response. Conversely, the U.S. Coast Guard has the expertise to manage many marine incidents, such as fire, disabled vessel management, salvage, or rescue.

An appropriate response can be further complicated by the introduction of state and federal specialized response teams that have the proper training to assist in an incident response. These teams must be correctly requested and then integrated into the management structure in order to properly aid the Incident Commander (IC).

The determination of who is in charge of an incident and who actually manages the incident may be two separate entities. Section 311(c)(1) of the Clean Water Act (CWA), as amended by the Oil Pollution Control Act of 1990, gives the pre-designated federal On Scene Coordinator (OSC) authority to "direct or monitor all federal, state, and private actions to remove a discharge" (emphasis added). The National Contingency Plan, as revised on September 15, 1994, states in Title 40 CFR, Part 300, Section 135(d) [40 CFR 300.135(d)] that "the OSC's efforts shall be coordinated with other appropriate federal, state, local, and private response agencies. OSC's may designate capable persons from federal, state, or local agencies to act as their on-scene representatives." Thus, a local government may manage a response as the OSC's representative. The OSC has signed a Memorandum of Understanding with some fire departments, formalizing this relationship. Then the OSC's only involvement would be their mandatory notification with the assurance that the local official, serving as the OSC's on-scene representative, has the capabilities to conduct an effective response.

The method by which the emergency phase is managed is contingent upon two variables: the incident's location and size. If at dock, where responders can have direct access to a site, local government should automatically assume the IC role. If the incident is on an anchored vessel or at sea, the Coast Guard will assume the IC role. Initial response to typical coastal Hazmat emergencies will involve local government responders, the U.S. Coast Guard, and appropriate state agencies, but as the incident grows in size and the need for specialized personnel and resources increase, the incident command system will expand and a unified command will be formed with the responsible decision makers. When a unified command is implemented for a particular incident occurring in the coastal zone, the lead authority in the unified command will be the U.S. Coast Guard, with potential involvement by a state and local representative, and a member of the responsible party (if appropriate).

Communication and coordination will be paramount in any Hazmat incident in order to ensure a proper response structure is established and clear lines of authority exist.

7200 GOVERNMENTAL POLICY AND RESPONSE

7210 Introduction

The emergency response system for Hazmat incidents differs widely depending on which level of government is involved. Each level has its own unique capabilities, responsibilities, response strengths and authorities. The following subsections describe the response actions and systems for the federal, state, and local agencies as viewed by the agencies themselves.

7220 Federal Policy and Response

Under the National Contingency Plan, the federal On-Scene Coordinator (OSC) is the senior official for all response efforts. These responsibilities are shared between the Coast Guard and the Environmental Protection Agency (EPA). The Coast Guard provides the OSC for oil discharges and Hazmat releases into or threatening the coastal zone. For this section, the coastal zone consists of the waters from the seaward edge of the Exclusive Economic Zone (EEZ, commonly referred to as the 200-mile limit) to the dividing line between Coast Guard and EPA responsibilities. The EPA provides OSCs for oil discharges and Hazmat releases into or threatening the inland zone. The boundaries between the Coast Guard and EPA zones can be found in the Regional Contingency Plan, Annex II, and in the Area Contingency Plan, Section 1400.

Notification: Any person in charge of a vessel or of an onshore facility shall, as soon as they have knowledge of any discharge of oil or a hazardous substance from such vessel or facility in violation of section 311(b)(3) of the

Federal Water Pollution Control Act (as amended), immediately notify the National Response Center (NRC). If direct reporting to the NRC is not practicable, reports may be made to the Coast Guard or EPA predesignated OSC for the geographic area where the discharge occurred (33 CFR 153.203).
NRC: 800-424-8802

The role of OSC is radically different depending on the product involved in the release. In incidents involving oil discharges, the Coast Guard OSC takes a very active role in the response. The OSC serves as the senior member of the Unified Command and directs the response activities. For Hazmat releases or threatened releases, the OSC looks after federal interests and provides support to the local, county or state responding agency. The OSC would assume an active role in the unified command only under specific circumstances, such as when an incident exceeds response capabilities of local agencies or occurs at sea. Otherwise, the OSC would assist the state and local agencies with any technical advice and monitor the response.

There are seven areas of Coast Guard response in case of a Hazmat release or threatened release into the Coastal Zone.

(1) Conducting local contingency planning for response to hazardous chemical releases.

(2) Conducting traditional Captain of the Port (COTP) response measures such as restricting access to the affected area and controlling marine traffic; notifying facilities operating vulnerable water intakes of the release; coordinating with state and local emergency agencies; and assisting as resources and capabilities permit.

(A) The Commanding Officer, USCG Marine Safety Office Los Angeles/Long Beach (CO, MSO LA/LB) is designated as the COTP for the purpose of giving immediate direction to Coast Guard law enforcement within his assigned area. U.S. Coast Guard COTPs serve as the designated OSC's for the coastal zone. Therefore, CO, MSO LA/LB is the OSC for the south central California coastal zone. This Area Of Responsibility (AOR) extends from the Monterey County-San Luis Obispo County line south to the Orange County-San Diego County line. Marine Safety Office LA/LB, Marine Environmental Protection Division may be reached at: (562) 980-4450 or 980-4444 (24hrs).

(B) Responsibilities of the COTP includes, but not limited to, the authority to:

- Control access to an area by establishment of a safety zone. That safety zone can include waterfront facilities, vessels, and areas of water or land, or both.

- Enlist the aid of federal, state, county, municipal, and private agencies to assist in the enforcement of access control. This also allows the use of Coast Guard resources for transportation of hazardous material incident responders, both government agencies and commercial.

- Control marine traffic by directing vessel movements in a specified area.

- Create a COTP order directing a specific vessel's operation, including anchoring, for, among other things, "temporary hazardous conditions."

- Prohibit entry into U.S. waters for multiple reasons, including discharges of oil or hazardous materials.

- Request a response from Coast Guard Pacific Area Strike Team (PST) at Novato, California.

- Have other Coast Guard units initiate marine band radio broadcasts for both informational purposes and to assist enforcement actions.

(3) Conducting a preliminary assessment of the incident to:

- Evaluate the magnitude of the threat to the public health and welfare and the environment,

- Determine if response action by the spiller and/or the state and local government is adequate,

- Establish jurisdiction for a federal response, and

- Collect the data necessary to formulate a response plan if a federal response is warranted.

(A) Regardless of the incident's location, the COTP can request any or all designated Special Forces (USCG National Strike Force (NSF), EPA Environmental Response Team (ERT), NOAA Scientific Support Coordinator (SSC), EPA Technical Assistance Team (TAT), etc.) to provide assistance.

(4) Contacting the owner and/or operator of the source of the release, if known, to inform them of their potential liability for government removal costs, to explain the Coast Guard's role as OSC, and to gather information for response and port safety purposes. Administrative orders shall be used when appropriate to direct actions of the responsible party.

(A) The state has various funding sources of their own, and should evaluate appropriate state sources before seeking federal funding (e.g., CERCLA).

(B) It should be noted that while the COTP can issue an administrative order to a facility under the authority of CERCLA Section 106, the definition of facility under CERCLA section 101(9) does not include vessels. Therefore, the COTP cannot issue administrative orders to vessels. The COTP may, however, be able to use a COTP order to accomplish the same effect.

(5) Based on the findings of the preliminary assessment, carrying out defensive actions if the situation warrants immediate action. Defensive actions are those that do not involve exposure to the chemical hazard but may reduce or stop the release or protect people from exposure to the chemical hazard.

(6) Monitoring cleanup actions of responsible parties or, in the case of federal removals, providing on-scene supervision of removal activities, and ensuring the employment of a sound removal strategy. The OSC is not expected to be capable of designing and carrying out a complex removal plan. In certain situations, support from Special Forces (e.g., NSF, EPA ERT, NOAA SSC) may be necessary to assist in the development or review of a removal strategy. In any case, the OSC shall ensure that all parties involved in the response adhere to guidelines regarding worker safety.

(A) To create a site safety plan involving an incident onboard a vessel, COTP may require the assistance of the ship's agent or shipping company for providing both the hazardous materials manifest and assistance in creating a removal strategy.

(7) For federal removals, arranging for the services of contractors and supervising their actions, ensuring that response costs are documented as required by Chapter 86 of the Marine Safety Manual.

7230 State Policy and Response

In California, the state's main role in any Hazmat incident is to assist local government, and take part in the unified command as appropriate. Certain resources exist at the state level, and if requested can be made available to assist in the response.

A release or threatened release of a Hazmat within the State of California must be reported. Hazmat includes any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health or safety or to the environment, if released. There is no minimum reportable quantity. An immediate verbal report of any release or threatened release of Hazmat must be made to:

(1) The local emergency response agency (such as 9-1-1, or the fire or health department, as
(2) The Governor's Office of Emergency Services (OES) at 800-852-7550 or 916-262-1621.

These immediate reports should include: location of the release or threatened release; the name(s) of the person(s) reporting; hazardous material involved; estimates of the quantity, and potential hazards presented by the material.

OES will notify other federal and state agencies and appropriate local government contacts as specified in law. Assistance may be sought from local agencies, other state agencies, or the federal government for any incident response. Additionally, those making notification or responders may request that OES contact specialized state agencies (e.g., DTSC) for additional assistance.

In accordance with the State of California, Office of Emergency Services' Hazmat Incident Contingency Plan, the following is a partial list of agencies and their responsibilities for Hazmat incidents.

Office of Emergency Services (OES) - is responsible for coordinating the mitigation, preparedness, response, and recovery activities related to disasters in California. For major events, OES is responsible for activating the State Operations Center and preparing situation reports for distribution to the Governor's Office, Legislature and other interests/agencies.

Department of Fish and Game (DFG) - has public trust responsibilities for the state's fish, wildlife, and their habitats. DFG responds to the scene of a hazardous material incident in order to:

- Take action necessary to protect or minimize the impact to fish and wildlife. If wildlife is injured, the department arranges for, and oversees, their care and rehabilitation.
- Provide technical advice on the impact the proposed containment and cleanup operation will have on fish, wildlife, and their habitat. The department can also supervise or provide recommendations, establish guidelines and approves methods for, containment and cleanup.
- Fulfill the role of lead agency in determining the completion of cleanup when natural resources are threatened.
- Conduct investigations, including the collection of evidence and the assessment of impacts to living resources and their habitats, to establish criminal and civil liability and responsibility.
- Approve the use of Oil Spill Cleanup Agents.

In addition to their public trust responsibilities, the Department of Fish and Game has the following responsibilities:

- The director is the State Operating Authority for oil spills and represents the state (with OES) on the Federal Regional Response Team.
- Functions as the State Agency Coordinator for off-highway hazardous material incidents.
- In the event of a declared emergency, the department will cooperate with other state agencies in providing requested communications and law enforcement support.
- Chairs the State Interagency Oil Spill Committee.

California Highway Patrol (CHP) - responsibility includes, but not limited to, the following:

- Functions as the Incident Commander/Scene Manager for a hazardous material incident which occurs on a highway or highway right-of-way within CHP jurisdiction. In situations where another agency first becomes aware of an incident within CHP jurisdiction, the CHP must be notified and provided with emergency information to ensure a safe response.
- Functions as the State Agency Coordinator for all hazardous material incidents occurring on state highways.
- Serves as statewide information, assistance and notification coordinator for all on-highway hazardous material incidents occurring on state highways.

Air Resources Board - is mandated to protect and enhance the ambient air quality of the state.

Water Resources Control Board - primary responsibility is to protect the state's surface, coastal and

ground water resources. This involves a proactive role in providing technical assistance to the State Agency Coordinator and the State Department of Health Services in evaluating the potential impact of hazardous material spills to water resources. Also, the agency issues cleanup and abatement or cease and desist orders to responsible parties, assesses fines, and pursues recovery of cost for abatement, mitigation, or contract cleanup.

Other state agencies that may assist in Hazmat incidents may include (for example):

Department of Toxic Substances Control (DTSC) - as part of California's Environmental Protection Agency (Cal EPA), DTSC has expertise handling and responding to a situations involving Hazmat;

Office of Environmental Health Hazard Assessment (OEHHA) - also part of Cal EPA and is concerned with researching and responding to a substance's impact to human health and the environment.

7230.1 Standardized Emergency Management System

Hazmat responses will be conducted under the auspices of the California Standardized Emergency Management System (SEMS) (Chapter 1, Division 2, Title 19, California Code of Regulations). SEMS defines the principles of the incident-command system, incident resources and facilities, and common responsibilities. The key components of SEMS are:

(1) Five levels of emergency management will be used statewide to create uniform organization and terminology. The five levels are field/incident, local government, operational area, region, and state.

(2) Five standard functions of the emergency response organization at all levels will be used. The five functions are command/management, operations, plans/intelligence, logistics, and finance/administration.

(3) The Operational Area (county) will be the central coordination point for information and resources at a major local incident.

(4) A statewide master mutual-aid system exists for coordination of operational area, regional, and state resources during major emergencies.

(5) An Operational Area Satellite Information System (OASIS) can be used to link all operational areas and OES via satellite communications.

(6) All state and local agencies must use SEMS during disaster responses and it is an eligibility requirement for local governments and agencies to receive state reimbursement following a disaster.

(7) SEMS guidelines and information on an approved course of instruction are available from state OES.

Further responsibilities and resources are contained in the California Hazardous Material Incident Contingency Plan (HMICP), compiled by the state OES. The HMICP contains a listing of additional federal, state, and local resources available during a response to a Hazmat incident. The HMICP also outlines the policy and process that should be followed during a Hazmat incident in California. The HMICP is currently being rewritten to be consistent with SEMS and other state response programs that the Legislature has created since its last edition.

7300 REGIONAL/AREA POLICIES, THREATS AND SCENARIOS

Pursuant to the California Health and Safety Code Chapter 6.95, County and local governments have developed **area plans** (which differ from the Federal ACPs) documenting policies and procedures for responding to Hazmat incidents. These policies and procedures include sections on notification and coordination, communications, utilization of the incident-command system, pre-emergency planning, public safety and information, supplies and

equipment, and responsibilities of responding organizations. The main responsibilities of the response agencies are to rescue and treat victims, perform fire suppression, isolate contaminated areas from the general public, control and contain the hazardous material(s), and facilitate any public evacuations or shelter-in-place operations. The area plan delineates who is responsible for management of the incident. Local area plans may differ on the designee of the IC. A representative from local police, fire, or offices of emergency services may assume the role of IC according to the local plan. Due to the proximity of these local public safety agencies to potential Hazmat sites on land they can respond quickly and adequately within their jurisdiction.

In regards to jurisdiction, area plans specify what locations would be covered for response by Hazmat agencies. Jurisdictions may include one or more counties, one or more cities, unincorporated areas or any combination thereof. Jurisdictions may also include all or some areas within city or county limits. Area plans may or may not discuss jurisdictions and response for their adjacent waters. Many local governments may not have considered response to Hazmat incidents, which may occur at docks, on adjoining bays or inlets, and on coastal waters. Their response in these waters may not have been considered due to a perception of the role of the U.S. Coast Guard and the California Department of Fish and Game in spills of oil and other petroleum related products. Also, a local government's ability to respond to waterborne incidents may be limited.

In the coastal zone the designated OSC resides with the U.S. Coast Guard. However, the on-scene management of the incident may reside with the appropriate local government agency responder.

Local agencies may have a number of limitations in handling Hazmat in waters and vessels. These include:

(1) Access to and communications with vessels;
(2) Hazardous materials transportation experience with vessels;
(3) Experience with vessel operations;
(4) Knowledge and access to booming resources; and,
(5) Experience with marine contractors.

Therefore, the ability of representatives of local agencies to respond and be the IC for Hazmat marine incidents is limited. Local agencies will vary in their ability to respond to incidents that occur in waters. The following is a general summary of the possible capabilities of a local agency response.

Docked Vessels - most local agencies should be able to respond and take charge of incidents that occur on docked vessels. They may still require assistance from the Coast Guard to control vessel traffic, notify facilities with vulnerable intakes, and other technical advise.

Vessels at Anchorage (sheltered waters) - some local agencies may be able to respond to incidents on vessels at anchor in bays or inlets. They may or may not have the transportation and communication capabilities to handle the incident. There will probably be a greater need of assistance from the Coast Guard.

Vessels Underway (unsheltered waters) - few, if any, local agencies will be able to respond to incidents which occur in coastal waters. For most incidents, the Coast Guard will be the primary response agency.
In all cases where Hazmat incidents may impact local jurisdictions, local agencies must be notified. Even if local agencies cannot take mitigation actions, they may still need to respond. Local governments are primarily responsible for the health and safety of its citizens and property.

Local agencies may also:
- Control public access to contaminated areas,
- Notify other coastal facilities and public areas that may be impacted,
- Provide logistical help to the lead agency,
- Provide personnel and other resources to the lead agency, and
- Provide mutual aid on request.
- Assist on any evacuation activities that may be needed.

For most Hazmat emergencies, local government responders will be on scene first at an incident within their jurisdiction. If not present on the scene, local government representatives should be brought into the management of the incident as soon as possible. Generally, in any Hazmat incident, assisting agencies will respond from three functional areas:

(1) Fire Services - Certain fire departments have established Hazmat response teams whose organizational structure will provide the necessary supervision and control for the essential functions required at a Hazmat incident.

(2) Law Enforcement - The local law-enforcement agency will respond to most Hazmat incidents. Depending on the incident factors, law enforcement may be a partner in the unified command of the incident, or may participate as an assisting agency. Some functional responsibilities which may be handled by law enforcement include: isolating the incident area; managing crowd control; traffic control; providing protective public action, such as evacuations or sheltering-in-place; and managing criminal investigations.

(3) Environmental-Health Agencies - In most cases, the local or state environmental-health agency will be at the scene as a partner in the command of the incident. Some functional responsibilities which may be handled by environmental-health agencies include:

a. Determining the nature and identity of the Hazmat;
b. Establishing the criteria for cleanup and disposal of the material;
c. Declaring the site safe for reentry by the public;
d. Providing the medical history of exposed individuals;
e. Monitoring the surrounding environment;
f. Assisting in the cleanup of the site; and,
g. Providing technical advice.

These three functional areas will be addressed through local, state and federal officials responding to the incident utilizing the incident command system (ICS). The design of the ICS structure and the makeup of the unified command will be determined by the specifics of a particular incident.

Currently in California a system of Hazmat mutual aid is being developed. A specific subset of the master mutual aid program in the state, the Hazmat-specific program will simplify and organize procedures for responding agencies to share personnel and resources during an incident, however large.

7300.1 County Threat Sections

The County Threat Sections identify several Extremely Hazardous Substances (EHS's) or Hazardous Materials that are typically stored or transported in bulk within the county. General details are given as to how they are stored and/or transported with respect to generating scenarios for purposes of this plan.

7300.2 County Scenario Sections

The County Scenario Sections may list one or more scenarios involving the release of a Hazardous Material within the coastal zone for each county that has been identified for planning purposes to assist emergency responder's plan for incident response. Each scenario has been developed to facilitate designing exercises and drills for purposes of large or small-scale exercises.

7310 San Luis Obispo County

The San Luis Obispo County Coastal zone extends South from the Monterey/San Luis Obispo County line to the San Luis Obispo/Santa Barbara County line. The inland boundary of this Coastal zone is defined under [Section 1000 of the ACP].

Potential sources of Hazardous Materials in San Luis Obispo County that may impact the coastal zone include:

-Agriculture,
-Petrochemical,
-Refrigeration,
-Power generating plants, and
-Oil refinement.

7310.1 County Threats

Common types, locations and uses of EHS's found in the county are:

-Pesticides transported by truck for use in agriculture,
-Pesticides stored in bulk tanks for use in agriculture,
-Pesticides stored in limited quantities in Farm Supply stores and farms for use in agriculture,
-Sulfuric acid stored and used by Diablo Canyon Nuclear Power Plant,
-Cyclohexylamine, chlorine, and ammonium hydroxide solution (ammonia) stored and used by the Tosco Refinery on the Nipomo Mesa.

The primary threat from a hazardous material release that may threaten the coastal zone would most likely come from a rail and/or truck transportation related incident. There is a Southern Pacific Railroad corridor that travels through the County's coastal zone beginning near Pismo Creek south to Santa Maria.

7310.2 County Scenarios

Train derailment scenario: A northbound Southern Pacific freight train derailed at the rail road bridge crossing Pismo Creek approximately 1 mile inland. The train was carrying hazardous materials. 8-10 cars derailed off the track, 4-6 being tank cars. One tank derailed into Pismo Creek. Smoke, flames and a white vapor cloud evolved. Butyl acrylate was in the tank that derailed into the creek and was leaking into the creek, migrating downstream towards the ocean. Butyl acrylate is highly reactive and flammable and may cause toxic effects if inhaled or absorbed through the skin. Other chemicals of concern in other tank cars include sulfuric acid, pentachlorophenol, petroleum distillates, and hydrochloric acid. The creek was flowing approximately 1 mile/hour. The derailment occurred in the spring time which means there are nesting threatened western snowy plovers on the beach as well as endangered tidewater gobys in Pismo Creek.

Tanker truck scenario: A tanker truck containing 3,000 gallons of corrosive chlorosulfonic acid was traveling north bound on HWY 101 headed for Chevron Corporation manufacturing company near the Paso Robles Airport. The acid began leaking out of a bottom valve in the back of the truck. Chlorosulfonic acid is considered an extremely hazardous chemical and it breaks down into hydrochloric acid and sulfuric acid (an extremely hazardous substance) and reacts violently with water. The truck driver observed the leak, (he saw the trail of liquid behind him in his mirrors) and pulled over off HWY 101 near the Pismo Creek bridge and attempted to tighten the bolts on the leaky valve. This caused the valve to break and dump the entire load of chlorosulfonic acid, which flowed into a storm drain and into Pismo Creek, approximately one mile inland from the ocean. The creek was flowing approximately 1 mile/hour. The leak occurred in the spring time which means there are nesting threatened western snowy plovers on the beach as well as endangered tidewater gobys in Pismo Creek.

Fixed facility scenario: A routine transfer operation was taking place at Diablo Canyon Nuclear Power plant, in a secondary containment area approximately 15' above the ocean at the intake cove, where two 10,000 gallon tanks containing 12% sodium hypochlorite are located. The sodium hypochlorite was being transferred from a delivery tanker truck to the sodium hypochlorite tanks when, during the transfer operation, a large fork lift collided into the sodium hypochlorite tanks, rupturing one of the tanks. Heavy rain and poor visibility are assumed to be the cause of the initial accident. Approximately 10,000 gallons of sodium hypochlorite were released into the secondary containment area and then into the overflow containment area. Both containment area sump valves were inadvertently left open, thereby allowing the sodium hypochlorite to be released into the ocean. The threatened southern sea otter, harbor seals, marine birds, as well as rocky intertidal organisms may be impacted.

7320 Santa Barbara County

The Santa Barbara County Coastal zone extends South from the San Luis Obispo/Santa Barbara County line to the Santa Barbara/Ventura County line. The inland boundary of this Coastal zone is defined under [Section 1000 of the ACP].

Potential sources of Hazardous Materials in Santa Barbara County that may impact the coastal zone include:
-Agriculture,
-Petrochemical,
-Refrigeration, and

7320.1 County Threats

Common types, locations and uses of EHS's found in the county are:
-Pesticides transported by truck for use in agriculture,
-Pesticides stored in bulk tanks for use in agriculture,
-Pesticides stored in limited quantities in Farm Supply stores and farms for use in agriculture,

7320.2 County Scenario

A tank truck containing 500 barrels (approximately 21,000 gallons) of liquid chlorine jackknifes and overturns while traveling north on Highway 101 through the city of Santa Barbara. The accident also involves a collection truck containing waste oil. The accident occurs in late April at 1100am. Approximately 350 barrels of liquid chlorine, about 100 gallons of diesel, and approximately 50 barrels of waste oil spill onto the freeway and flow through a downdrain into Mission Creek. Stream flows are minimal, but are sufficient to keep the sand berm at the mouth of Mission Creek open and to carry the products through tidewater goby habitat and onto the beach within 1 hour.

It is a warm spring day. The beach is comprised of medium to fine grain sand. There are variable winds west to northwest of less than 3 knots. The freeway, city streets, beach access route, restaurants and wharf are crowded with local residents and tourists. The arts and crafts street fair is in progress along Cabrillo Blvd.

7330 Ventura County

The Ventura County Coastal zone extends South from the Santa Barbara/Ventura County line to Ventura/Los Angeles County line. The inland boundary of this Coastal zone is defined under [Section 1000 of the ACP].

Potential sources of Hazardous Materials in Ventura County that may impact the coastal zone include:
-Agriculture,
-Petrochemical,
-Refrigeration, and

7330.1 County Threats

Common types, locations and uses of EHS's found in the county are:
-Pesticides transported by truck for use in agriculture,
-Pesticides stored in bulk tanks for use in agriculture,
-Pesticides stored in limited quantities in Farm Supply stores and farms for use in agriculture,

7330.2 County Scenario

At 0800 hours a train derailment occurs immediately north of the low flow channel of the Ventura River. This causes a tank car to rupture and spill 2500 gallons of Hydrazine (rocket fuel). The product flows through the recreational vehicle park, through riparian and aquatic vegetation, enters a dry braid of the river and is flowing toward the estuary, which is inhabited by federally listed endangered tidewater gobies. The southern run steelhead, a soon to be federally listed endangered species, is migrating upstream through the impacted area. Snowy plovers and brown pelicans (both federally listed species), other wading and shore birds and waterfowl are observed in the estuary and on the beach.

The berm at the mouth of the Ventura River is open. The beaches adjacent to the mouth are primarily comprised of cobble material. It is a calm overcast morning in early spring. Light rain and southwesterly winds are expected in the afternoon.

At the time of the spill, it is Sunday morning and the freeway has relatively little traffic. However, it is expected that traffic will increase by the afternoon. The recreational vehicle park has 75 occupied spaces. It is estimated there are approximately 50 homeless people living in encampments within the vegetation in the bed of the Ventura River between the railroad and Main Street bridges. Emma Woods State Beach is occupied by campers, RVs and ocean fishers.

7340 Los Angeles County

The Los Angeles County Coastal zone extends South from the Ventura/Los Angeles County line to the Los Angeles/Orange County line. The inland boundary of this Coastal zone is the defined under [Section 1000of the ACP].

Potential sources of Hazardous Materials in Los Angeles County that may impact the coastal zone include:

-Agriculture,
-Petrochemical,
-Shipping,
-Industrial Manufacturing
-Refrigeration, and
-Oil refinement

7340.1 County Threats

Common types, locations and uses of EHS's found in the county are:

-Pesticides transported by truck and stored in bulk for use in agriculture,
-Petrochemicals stored in bulk tanks at Refineries and Marine Oil Transfer Facilities,
-Assorted hazardous materials transported in intermodal bulk and non-bulk shipments,
-Assorted hazardous materials used in Industrial Manufacturing such as metal plating and textiles, and
-Ammonia used in refrigeration warehouses.

7340.2 County Scenarios

Rail Car Incident: At 1100 hrs a leaking rail car is discovered, located just west of the LA River at Ocean Blvd. The car contains 13,350 gallons of fuming sulfuric acid and is leaking from the bottom washout valve. A plume of white smoke is drifting NNE towards the Downtown area. The rail car is leaking at approximately 5 gallons per minute, into the LA River. Current weather is overcast, 70 degrees with 40% humidity. The winds are from the South at 5 knots. There was a light drizzle earlier in the morning and a 20% chance of showers remains for the afternoon.

Leaking container on inbound vessel: A container vessel inbound from China reports a leaking 40' container on deck, aft of the house. The master reports the container is loaded with 600 five gallon cans of parathion. The leak

is a small puddle of a brownish liquid near the doors on the container. The master estimates approximately 1 liter per day is leaking.
This particular scenario is unique and merits an explanation of the expected response actions. This is a mobile hazmat incident, necessitating a meeting of all interested parties to determine a location that the vessel can be directed, to permit a safe and effective response. Interested parties include, Coast Guard, Fire Department, Health Department, Port Authority, Pilot Association, Response Contractor, Terminal Manager (expected destination), Vessel Agent and Cargo Agent. The parties will discuss the hazards associated with the leaking chemical and the potential risks of exposure to the public, terminal employees and responders. The options to consider are taking the vessel to; its original terminal destination, alternate terminal, inside anchorage, outside anchorage, alternate US port or prohibit entry into any US port.

Liquefied hazardous gas: A vessel moored at a facility is transferring Liquefied hazardous gas (LHG) from an 18,535 gallon tank when a 3" vent pipe on manifold is sheared off. Winds are 15 knots from south and air temperature is 70 degrees. The automatic emergency shut off valves secure the leak within 60 seconds. The lower explosive limit for LHG is 1.8% or 18,000 ppm. An ALOHA model was run and indicates a 1.2 mile plume downwind with a level of concern of 10% of LEL or 2,000 ppm.

Tank Truck: A UTR carrying an IMO tank containing hydrogen peroxide, not less than 60%, tipped over on a facility. The tank was not leaking, but a contractor was hired to offload the tank prior to righting it. The contractor began transferring the product at 0900, into a portable baker tank when the contents began to react. There is approximately 200 gallons of hydrogen peroxide, bubbling and smoking, in the baker tank. It is a warm summer day with temperatures expected in the 90's. Winds are light and variable, shifting from the west at 15 kts.

7350 Orange County

The Orange County Coastal zone extends South from the Los Angeles/Orange County line to the Orange/San Diego County line. The inland boundary of this Coastal zone is defined under [Section 1000 of the ACP].

Potential sources of Hazardous Materials in Orange County that may impact the coastal zone include:
-Agriculture,
-Petrochemical, and
-Refrigeration.

7350.1 County Threats

Common types, locations and uses of EHS's found in the county are:
-Pesticides transported by truck for use in agriculture,
-Assorted hazardous materials transported by truck, and
-Assorted hazardous materials used in light industrial manufacturing.

7350.2 County Scenario

A cryogenic tank truck side-swipes a vehicle and looses control, causing the truck to jackknife and overturn, southbound on the 405 freeway ¼ mile north of the MacArthur exit in Irvine. The truck is carrying refrigerated liquid nitrogen which is now being released into the atmosphere. The plume is extending across all southbound and northbound lanes of the freeway and is affecting air traffic flight patterns at John Wayne Airport.

7400 LOGISTICS

7410 Public Hazardous Material Response Resources

7410.1 Introduction

This section is intended to identify existing regional and local planning for obtaining hazardous material emergency response resources. The State's Fire and Rescue Mutual Aid System was developed through the cooperation of every segment of California's Fire Service. To maintain system integrity, local fire officials are actively involved in day-to-day system management and operation.

Region I Local Emergency Planing Committee (LEPC) as specified by SARA Title III is comprised of Orange, Los Angeles, Ventura, Santa Barbara, and San Luis Obispo counties.

7410.2 Background

The S.A.F.E. Act, authored by Assemblywoman Bev Hansen (8th District), became law on January 1, 1988. The Office of Emergency Services (OES) has promulgated rules and regulations governing the programs created by the S.A.F.E. Act, in California Code of Regulations, Title 19 Section 2800 et. seq.

The S.A.F.E. Act authorizes the director of OES to implement and operate two different programs, both designed to assist local agencies particularly those local agencies in rural areas of the state in acquiring firefighting vehicles and related equipment. The Director has delegated the management of these programs to the Fire and Rescue Branch of OES.

Neither the LEPC nor OES has a stockpile of specific resources such as skilled manpower, specialized equipment, or supplies for hazardous materials emergencies.

The Region I response organization is comprised of all local government jurisdictions, special districts, and private facilities which have capabilities to respond to hazardous materials emergencies. In addition, state and federal agencies that have appropriate statutory authority for such emergencies may be called on. Other state agencies and organizations that have special capabilities, or authorities, are called as the situation warrants.

Region I hazardous materials emergency response operations are based in existing OES mutual aid principles. The system works in the following manner:

When an emergency has exceeded the city's capability, it makes a request to the operational area (county) for assistance.
1. The operational area will draw on resources from other cities, as well as providing its own county resources.
2. When an emergency threatens to exceed a county's capability, mutual aid assistance is requested from the region.
3. OES Region I will look for assistance from other counties within the region.
4. If adequate resources are not available, the OES Headquarters will be requested to obtain the needed assistance from throughout the state and the federal government.

Certain conditions must exist and procedures followed in order to activate the Regional and State plans. These are described in Section V of Region I Plan. The actual amount and type of equipment that is available from each local agency is listed in the Fire and Rescue Mutual Aid System Resources Directory.

7410.3 Resources

The following is a list of federal and state contacts:

FEDERAL:

1. U.S. Coast Guard:
   Marine Environmental Protection 562-980-4450
   24 hr numbers 562-980-4444

2. National Response Center: 800-424-8802

3. Environmental Protection Agency:

Hazardous Materials	415-744-1305
San Francisco – 24 hr number	415-744-2000

4. Department of Energy:
   Emergency Duty Officer 702-295-3343

STATE:

1. State Office of Emergency Services:

Hazardous Materials Planing	916-262-1621
Warning Control Center	800-852-7550

2. Cal State EPA; Department of Toxic Substance Control:

General number	818-551-2800
After hrs.	use OES/Warning Control Center

3. California Highway Patrol:
   Major incidents 213-736-3317

4. Chemical and Medical Information:
   Toxic Info Center 800-404-4646

7410.4 Resource Reference Documents

Fire and Rescue Mutual Aid System (revised 4/88)

Fire and Rescue Mutual Aid System Resource Directory (revised 3/94)

Region I LEPC Emergency Plan (draft revision 2/97)

Fire Service Field Operations Guide ICS 420-1 (revised 10/94)

Oil Spill Field Operations Guide ICS-05-420-1 (revised 6/96)

7420 Private Hazardous Material Response Resources

Private organizations include chemical mutual-aid organizations, individual companies with response units, and information sources. The private response/cleanup contractors are listed by response capabilities as defined by Firescope California's Hazardous Materials Company Types and Minimum Standards.

7420.1 Commercial

Advanced Cleanup Technologies, Inc.	Type 1 & 2	800-334-2284
ANCON Marine	Type 1 & 2	310-548-8300
FOSS Environmental Services, Inc.	Type 1 & 2	562-432-1304
Ocean Blue	Type 2 only	310-624-4120

7420.2 Industry Specialized

1. CHEMTREC: Emergency 800-424-9300; Non-emergency: 1-800-262-8200

   CHEMTREC is a 24-hour public service of the Chemical Manufacturers' Association; can provide:
   (1) Immediate emergency action information for spill, leak, exposure, or fire control measures;
   (2) Precautionary information;
   (3) Assistance in identification of a hazardous substance if the manufacturer is known or if shipping papers are present; and,
   (4) Immediate notification of manufacturers or shippers through their emergency contacts or notification of industry mutual-aid networks.
   (5) Info from the National Poison Antidote Center (NPAC) with immediate information of most known poisons and communications to all major hospitals.
   (6) Contact with the chemical manufacturer for detailed technical information, and, in some cases, activation of the manufacturer's response team.
   (7) Contact with carriers for technical information, waybill or cargo manifest printouts, and some carriers can assist with chemical- and wreckage-removal operations.
   (8) Contact with the Chlorine Emergency Plan (CHLOREP) is organized by the Chlorine Institute, it is activated by CHEMTREC.

2. CHEMTEL: will provide services similar to CHEMTREC; 800-255-3924 (24hrs).

3. AMERICAN CYANAMIDE: will assist and provide information on their products; 201-835-3100 (24-hrs).

4. BASF WYANDOTTE: will provide information on their products; 313-282-3300.

5. DOW CHEMICAL CO.: will assist and provide information on their products, advice available for chlorine
   incidents; 517-636-4400.

6. DU PONT: will assist and provide information on their products, advice and response available for chlorine and
   hydrogen fluoride incidents on or off site; 302-774-7500

7. NATIONAL AGRICULTURAL: will provide information on CHEMICALS ASSOCIATION pesticides; 513-961-9300.

8. NATIONAL PESTICIDE TELECOMMUNICATION NETWORK: will provide information on most pesticides, herbicides, and fungicides; 800-858-7378 (0630-1630 PST, 7days/week).

9. UNION CARBIDE: will assist and provide information on their products; 212-551-2345.

7430 DATABASES (internet access)

OSHA:	www.osha.gov
USEPA:	http://www.epa.gov/
RESPONSE HANDBOOK:	http://www.testdepth.com/naerg.htm